

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed October 5, 2004. Applicant respectfully requests reconsideration and favorable action in this case in view of the following remarks.

Double Patenting Rejection

The Office Action rejects Claims 1-12 under 35 U.S.C. §101 as claiming the same invention as that of Claims 1-12 of prior U.S. Pat. No. 6,324,185. Applicant traverses this rejection because Applicant filed a Preliminary Amendment on Nov. 7, 2001, canceling Claims 1-12 and adding new Claims 13-38. Examiner apparently overlooked this Preliminary Amendment. Applicant has attached a copy of this Preliminary Amendment to this response in addition to a copy of the filing receipt herein as Exhibit "A". Reconsideration and withdrawal of the double patenting rejection of these claims is respectfully requested and Applicant requests examination on the merits of Claims 13-38.

Request For Consideration of Information Disclosure Statement

Applicant submitted an Information Disclosure Statement on November 7, 2001. Applicant did not receive a PTO-1449 form, initialed by the Examiner, indicating that the Information Disclosure Statement submitted November 7, 2001 was reviewed by the Examiner. Applicant respectfully requests that the Examiner confirm the review of the Information Disclosure Statement submitted November 7, 2001, by returning the associated PTO-1449 forms, initialed by the Examiner. For the convenience of the Examiner, a copy of the Information Disclosure Statement filed November 7, 2001 is hereby attached as Exhibit "B".

CONCLUSIONS

Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests full allowance of all pending Claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicant stands ready to conduct such a conference at the convenience of the Examiner.

Applicant believes no fee is due. However, should there be a fee discrepancy, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant



Thomas A. Beaton
Reg. No. 46,543
PHONE: (214) 953-6464

Date: 11/22/04

CORRESPONDENCE ADDRESS:

Customer Number: **05073**
Attorney Docket No.: 062891.0646

ATTORNEY DOCKET NO.
062891.0646

PATENT APPLICATION
Serial No. 10/007,348

Exhibit "A"
(Copy of Preliminary Amendment filed November 7, 2001)

The "Received" stamp of the Patent and Trademark Office imprinted hereon acknowledges the filing of:

Total Pages	Total Pages
<input checked="" type="checkbox"/> New Appln.; C.P.A.; <input checked="" type="checkbox"/> CIP.; Div.; Provisional; Converted Provisional (Specification, Claims, Abstract)	<input type="checkbox"/> Mo. Extension of Time _____
<input type="checkbox"/> Bibliographic Data Sheet	<input type="checkbox"/> Notice of Appeal _____
<input checked="" type="checkbox"/> Declaration/power of Attorney <i>COPY</i>	<input type="checkbox"/> Appeal Brief _____
<input type="checkbox"/> Assignment	<input type="checkbox"/> Issue Fee Transmittal _____
<input type="checkbox"/> Verified Statement	<input checked="" type="checkbox"/> Check No. <u>110816</u> Amt: <u>1,100.00</u>
<input checked="" type="checkbox"/> Formal Drawing <i>COPY</i>	<input type="checkbox"/> Check No. _____ Amt: _____
<input type="checkbox"/> Informal Drawings	<input type="checkbox"/> Serial No. _____
<input checked="" type="checkbox"/> Amendment/Response Preliminary <u>23</u>	<input checked="" type="checkbox"/> Other <u>IDS, 000000 (4 pg's)</u> <u>+ PTO-1449</u>

Name of Inventor(s): <u>Budhraja</u>	Receipt Date & Serial No:
Title of Invention: <u>M+A for Switching & Managing bandwidth ...</u>	
Client or Applicant: <u>Cisco Sys.</u>	BB File No: <u>062891.0646</u>
Mailed: <u>11/7/01</u>	Certificate of Mailing Express Mail <input checked="" type="checkbox"/> Receipt No. <u>EL0001024320 US</u>
Due:	 JC985 U.S. PTO <u>10/007348</u> 11/07/01
Atty/Secy: <u>BES/KL</u>	Certificate Of Mailing First Class Mail <input type="checkbox"/> Hand Delivered <input type="checkbox"/>

Docket ✓ Wrapper ✓

RVF Docketed _____

Reference(s) _____

BAKER BOTTS, L.L.P.

DEC 26 2001

RECEIVED

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Virendra K. Budhraja

Title: METHOD AND APPARATUS FOR SWITCHING AND
MANAGING BANDWIDTH IN AN ATM/TDM NETWORK
CROSS-CONNECT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

PRELIMINARY AMENDMENT

Prior to the initial review of this non-provisional utility continuation patent application entitled "Method and Apparatus for Switching and Managing Bandwidth in an ATM/TDM Network Cross-Connect" by Virendra K. Budhraja, please amend the application as follows:

IN THE SPECIFICATION

The specification is amended at Page 1 as follows. Please refer to the attached sheet showing a marked-up version of the amendment to the specification.

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. Application Serial No. 09/208,626, filed December 8, 1998, by Virendra K. Budhraja and entitled "Method and Apparatus for Switching and Managing Bandwidth in an ATM/TDM Network Cross-Connect."

IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the present Application are shown below whether or not an amendment has been made. Please refer to any attached sheets showing a marked-up version of any amendments to the specification and claims.

1. (Canceled).

2. (Canceled).

3. (Canceled).

4. (Canceled).

5. (Canceled).

6. (Canceled).

7. (Canceled).

8. (Canceled).

9. (Canceled).

10. (Canceled).

11. (Canceled).

12. (Canceled).

13. (New) A switching node, comprising:

a network interface operable to receive an asynchronous transfer mode (ATM) cell comprising header bytes, information storage bytes, and synchronous network traffic stored in the information storage bytes;

a switching subsystem operable to perform asynchronous transfer mode (ATM) switching; and

a memory subsystem operable to store bandwidth allocation information for the switching node, the bandwidth allocation information enabling the switching subsystem to communicate the ATM cell to another switching node using the network interface without individually switching the information storage bytes of the ATM cell.

14. (New) The switching node of Claim 13, wherein the ATM cell is one of a plurality of ATM cells, the switching subsystem is further operable to perform synchronous network switching, and the processor is operable to receive synchronous network traffic from the network interface and to store the synchronous network traffic in the ATM cells.

15. (New) The switching node of Claim 13, wherein the switching subsystem is further operable to perform synchronous network switching, and the processor is further operable to retrieve the synchronous network traffic from the ATM cell and to communicate the synchronous network traffic synchronously to a subscriber termination of an ATM network using the network interface.

16. (New) The switching node of Claim 13, wherein the bandwidth allocation information describes allocated bandwidth and available bandwidth for a plurality of switching nodes, and the bandwidth allocation information further comprises a destination identifier identifying a destination switching node for the ATM cell

17. (New) The switching node of Claim 13, wherein:

the synchronous network traffic stored in the information storage bytes of the ATM cell comprises a plurality of DS-0s;

the bandwidth allocation information comprises a destination identifier identifying a destination switching node for the ATM cell; and

each DS-0 in the ATM cell is associated with the destination identifier.

18. (New) The switching node of Claim 13, wherein the bandwidth allocation information comprises:

a destination identifier identifying a destination switching node for the ATM cell;

a virtual path identifier (VPI);

a virtual channel identifier (VCI);

a bandwidth map comprising a plurality of bandwidth block identifiers; and

a selected bandwidth block identifier allocated to the ATM cell.

19. (New) A method for transporting synchronous network traffic across an asynchronous transfer mode (ATM) network, comprising:

receiving a network request for a cross-connection at a switching node in an ATM network, the network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for supporting the cross-connection;

retrieving from memory bandwidth allocation information for the switching node, the bandwidth allocation information specifying a plurality of bandwidth blocks;

allocating one or more bandwidth blocks for the cross-connection;

updating the bandwidth allocation information to reflect the allocated bandwidth blocks;

updating the bandwidth allocation information to include the destination switching node;

receiving an ATM cell comprising header bytes, information storage bytes and synchronous network traffic stored in the information storage bytes; and

communicating the ATM cell using the bandwidth allocation information without individually switching the information storage bytes.

20. (New) The method of Claim 19, wherein the ATM cell is one of a plurality of ATM cells and the method further comprises:

receiving the synchronous network traffic from a network termination of a synchronous network; and

storing the synchronous network traffic in the information storage bytes of one or more of the plurality of ATM cells.

21. **(New)** The method of Claim 19, further comprising:
determining if sufficient bandwidth blocks are available for the bandwidth requirements of the cross-connection; and
if not enough of the bandwidth blocks are available, communicating a network response to a network managing station indicating that not enough of the bandwidth blocks are available, and waiting until sufficient bandwidth blocks become available before allocating the one or more bandwidth blocks to the cross-connection.

22. **(New)** The method of Claim 19, wherein the bandwidth allocation information describes allocated bandwidth and available bandwidth for a plurality of switching nodes.

23. **(New)** The method of Claim 19, wherein:
the synchronous network traffic stored in the information storage bytes of the ATM cell comprises a plurality of DS-0s; and
each DS-0 in the ATM cell is associated with the destination identifier.

24. **(New)** The method of Claim 19, wherein the bandwidth allocation information comprises:
the destination identifier;
a virtual path identifier (VPI);
a virtual channel identifier (VCI); and
a selected bandwidth block identifier allocated to the ATM cell.

25. (New) Software embodied in a computer readable medium and operable to perform the following steps:

receiving a network request for a cross-connection at a switching node in an ATM network, the network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for supporting the cross-connection;

retrieving from memory bandwidth allocation information for the switching node, the bandwidth allocation information specifying a plurality of bandwidth blocks;

allocating one or more bandwidth blocks for the cross-connection;

updating the bandwidth allocation information to reflect the allocated bandwidth blocks;

updating the bandwidth allocation information to include the destination switching node;

receiving an ATM cell comprising header bytes, information storage bytes and synchronous network traffic stored in the information storage bytes; and

communicating the ATM cell using the bandwidth allocation information without individually switching the information storage bytes.

26. (New) The software of Claim 25, wherein the ATM cell is one of a plurality of ATM cells and the method further comprises:

receiving the synchronous network traffic from a network termination of a synchronous network; and

storing the synchronous network traffic in the information storage bytes of one or more of the plurality of ATM cells.

27. (New) The software of Claim 25, further comprising:
determining if sufficient bandwidth blocks are available for the bandwidth requirements of the cross-connection; and
if not enough of the bandwidth blocks are available, communicating a network response to a network managing station indicating that not enough of the bandwidth blocks are available, and waiting until sufficient bandwidth blocks become available before allocating the one or more bandwidth blocks to the cross-connection.

28. (New) The software of Claim 25, wherein the bandwidth allocation information describes allocated bandwidth and available bandwidth for a plurality of switching nodes.

29. (New) The software of Claim 25, wherein:
the synchronous network traffic stored in the information storage bytes of the ATM cell comprises a plurality of DS-0s; and
each DS-0 in the ATM cell is associated with the destination identifier.

30. (New) The software of Claim 25, wherein the bandwidth allocation information comprises:
the destination identifier;
a virtual path identifier (VPI);
a virtual channel identifier (VCI); and
a selected bandwidth block identifier allocated to the ATM cell.

31. (New) A system for transporting synchronous network traffic across an asynchronous transfer mode (ATM) network, comprising:

means for receiving a network request for a cross-connection at a switching node in an ATM network, the network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for supporting the cross-connection;

means for retrieving from memory bandwidth allocation information for the switching node, the bandwidth allocation information specifying a plurality of bandwidth blocks;

means for allocating one or more bandwidth blocks for the cross-connection;

means for updating the bandwidth allocation information to reflect the allocated bandwidth blocks;

means for updating the bandwidth allocation information to include the destination switching node;

means for receiving an ATM cell comprising header bytes, information storage bytes and synchronous network traffic stored in the information storage bytes; and

means for communicating the ATM cell using the bandwidth allocation information without individually switching the information storage bytes.

32. (New) A method for establishing a cross-connection for synchronous network traffic transported in an asynchronous transfer mode (ATM) network, comprising:

determining a network path for a cross-connection, the network path comprising a first switching node and a second switching node;

storing bandwidth allocation information for the first and second switching nodes;

communicating a first network request for the cross-connection to the first switching node, the first network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for the cross-connection;

receiving, in response to the first network request, updated bandwidth allocation information for the first switching node;

updating the stored bandwidth allocation information for the first switching node; and

communicating a second network request for the cross-connection to the second switching node, the second network request comprising the destination identifier, the bandwidth requirements for the cross-connection, and the updated bandwidth allocation information for the first switching node.

33. (New) The method of Claim 32, wherein determining the network path for the cross-connection comprises:

determining a plurality of network paths from an origination to a destination, each network path specifying one or more switching nodes and each network path having sufficient bandwidth to support the cross-connection;

selecting from the plurality of network paths one or more shortest network paths comprising a least number of switching nodes; and

selecting from the one or more shortest network paths the shortest network path having the highest bandwidth.

34. (New) The method of Claim 32, wherein the method further comprises:

receiving a network response indicating that insufficient bandwidth is available for the cross-connection; and

selecting an alternative network path for the cross-connection.

35. (New) The method of Claim 32, wherein the steps are performed at a network managing station.

36. (New) Software embodied in a computer readable medium and operable to perform the following steps:

determining a network path for a cross-connection, the network path comprising a first switching node and a second switching node;

storing bandwidth allocation information for the first and second switching nodes;

communicating a first network request for the cross-connection to the first switching node, the first network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for the cross-connection;

receiving, in response to the first network request, updated bandwidth allocation information for the first switching node;

updating the stored bandwidth allocation information for the first switching node; and

communicating a second network request for the cross-connection to the second switching node, the second network request comprising the destination identifier, the bandwidth requirements for the cross-connection, and the updated bandwidth allocation information for the first switching node.

37. (New) The software of Claim 36, wherein determining the network path for the cross-connection comprises:

determining a plurality of network paths from an origination to a destination, each network path specifying one or more switching nodes and each network path having sufficient bandwidth to support the cross-connection;

selecting from the plurality of network paths one or more shortest network paths comprising a least number of switching nodes; and

selecting from the one or more shortest network paths the shortest network path having the highest bandwidth.

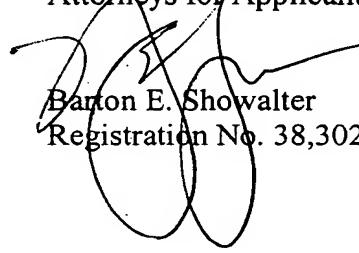
38. (New) The software of Claim 36, wherein the method further comprises receiving a network response indicating that insufficient bandwidth is available for the cross-connection; and selecting an alternative network path for the cross-connection.

REMARKS

Early and favorable acceptance of this continuation application is respectfully requested.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant


Barton E. Showalter
Registration No. 38,302

2001 Ross Avenue
Dallas, Texas 75201
Phone: 214.953.6509
Fax: 214.661.4509

Dated: Nov. 7, 2001

Marked-Up Version of Specification and Claim Amendments

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The specification and claims have been amended as follows:

IN THE SPECIFICATION

Please amend the specification at Page 1, line 1, by inserting the following:

--CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. Application Serial No. 09/208,626, filed December 8, 1998, by Virendra K. Budhraja and entitled "Method and Apparatus for Switching and Managing Bandwidth in an ATM/TDM Network Cross-Connect."—

IN THE CLAIMS

Please amend the Claims as follows.

Please cancel Claims 1-12 without prejudice.

Please add the following new claims.

--13. (New) A switching node, comprising:

a network interface operable to receive an asynchronous transfer mode (ATM) cell comprising header bytes, information storage bytes, and synchronous network traffic stored in the information storage bytes;

a switching subsystem operable to perform asynchronous transfer mode (ATM) switching; and

a memory subsystem operable to store bandwidth allocation information for the switching node, the bandwidth allocation information enabling the switching subsystem to communicate the ATM cell to another switching node using the network interface without individually switching the information storage bytes of the ATM cell.

14. (New) The switching node of Claim 13, wherein the ATM cell is one of a plurality of ATM cells, the switching subsystem is further operable to perform synchronous network switching, and the processor is operable to receive synchronous network traffic from the network interface and to store the synchronous network traffic in the ATM cells.

15. (New) The switching node of Claim 13, wherein the switching subsystem is further operable to perform synchronous network switching, and the processor is further operable to retrieve the synchronous network traffic from the ATM cell and to communicate the synchronous network traffic synchronously to a subscriber termination of an ATM network using the network interface.

16. (New) The switching node of Claim 13, wherein the bandwidth allocation information describes allocated bandwidth and available bandwidth for a plurality of switching nodes, and the bandwidth allocation information further comprises a destination identifier identifying a destination switching node for the ATM cell

17. (New) The switching node of Claim 13, wherein:
the synchronous network traffic stored in the information storage bytes of the ATM cell comprises a plurality of DS-0s;
the bandwidth allocation information comprises a destination identifier identifying a destination switching node for the ATM cell; and
each DS-0 in the ATM cell is associated with the destination identifier.

18. (New) The switching node of Claim 13, wherein the bandwidth allocation information comprises:
a destination identifier identifying a destination switching node for the ATM cell;
a virtual path identifier (VPI);
a virtual channel identifier (VCI);
a bandwidth map comprising a plurality of bandwidth block identifiers; and
a selected bandwidth block identifier allocated to the ATM cell.

19. (New) A method for transporting synchronous network traffic across an asynchronous transfer mode (ATM) network, comprising:

receiving a network request for a cross-connection at a switching node in an ATM network, the network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for supporting the cross-connection;

retrieving from memory bandwidth allocation information for the switching node, the bandwidth allocation information specifying a plurality of bandwidth blocks;

allocating one or more bandwidth blocks for the cross-connection;

updating the bandwidth allocation information to reflect the allocated bandwidth blocks;

updating the bandwidth allocation information to include the destination switching node;

receiving an ATM cell comprising header bytes, information storage bytes and synchronous network traffic stored in the information storage bytes; and

communicating the ATM cell using the bandwidth allocation information without individually switching the information storage bytes.

20. (New) The method of Claim 19, wherein the ATM cell is one of a plurality of ATM cells and the method further comprises:

receiving the synchronous network traffic from a network termination of a synchronous network; and

storing the synchronous network traffic in the information storage bytes of one or more of the plurality of ATM cells.

21. (New) The method of Claim 19, further comprising:
determining if sufficient bandwidth blocks are available for the bandwidth requirements of the cross-connection; and
if not enough of the bandwidth blocks are available, communicating a network response to a network managing station indicating that not enough of the bandwidth blocks are available, and waiting until sufficient bandwidth blocks become available before allocating the one or more bandwidth blocks to the cross-connection.

22. (New) The method of Claim 19, wherein the bandwidth allocation information describes allocated bandwidth and available bandwidth for a plurality of switching nodes.

23. (New) The method of Claim 19, wherein:
the synchronous network traffic stored in the information storage bytes of the ATM cell comprises a plurality of DS-0s; and
each DS-0 in the ATM cell is associated with the destination identifier.

24. (New) The method of Claim 19, wherein the bandwidth allocation information comprises:
the destination identifier;
a virtual path identifier (VPI);
a virtual channel identifier (VCI); and
a selected bandwidth block identifier allocated to the ATM cell.

25. (New) Software embodied in a computer readable medium and operable to perform the following steps:

receiving a network request for a cross-connection at a switching node in an ATM network, the network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for supporting the cross-connection;

retrieving from memory bandwidth allocation information for the switching node, the bandwidth allocation information specifying a plurality of bandwidth blocks;

allocating one or more bandwidth blocks for the cross-connection;

updating the bandwidth allocation information to reflect the allocated bandwidth blocks;

updating the bandwidth allocation information to include the destination switching node;

receiving an ATM cell comprising header bytes, information storage bytes and synchronous network traffic stored in the information storage bytes; and

communicating the ATM cell using the bandwidth allocation information without individually switching the information storage bytes.

26. (New) The software of Claim 25, wherein the ATM cell is one of a plurality of ATM cells and the method further comprises:

receiving the synchronous network traffic from a network termination of a synchronous network; and

storing the synchronous network traffic in the information storage bytes of one or more of the plurality of ATM cells.

27. (New) The software of Claim 25, further comprising:
determining if sufficient bandwidth blocks are available for the bandwidth requirements of the cross-connection; and
if not enough of the bandwidth blocks are available, communicating a network response to a network managing station indicating that not enough of the bandwidth blocks are available, and waiting until sufficient bandwidth blocks become available before allocating the one or more bandwidth blocks to the cross-connection.

28. (New) The software of Claim 25, wherein the bandwidth allocation information describes allocated bandwidth and available bandwidth for a plurality of switching nodes.

29. (New) The software of Claim 25, wherein:
the synchronous network traffic stored in the information storage bytes of the ATM cell comprises a plurality of DS-0s; and
each DS-0 in the ATM cell is associated with the destination identifier.

30. (New) The software of Claim 25, wherein the bandwidth allocation information comprises:
the destination identifier;
a virtual path identifier (VPI);
a virtual channel identifier (VCI); and
a selected bandwidth block identifier allocated to the ATM cell.

31. (New) A system for transporting synchronous network traffic across an asynchronous transfer mode (ATM) network, comprising:

means for receiving a network request for a cross-connection at a switching node in an ATM network, the network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for supporting the cross-connection;

means for retrieving from memory bandwidth allocation information for the switching node, the bandwidth allocation information specifying a plurality of bandwidth blocks;

means for allocating one or more bandwidth blocks for the cross-connection;

means for updating the bandwidth allocation information to reflect the allocated bandwidth blocks;

means for updating the bandwidth allocation information to include the destination switching node;

means for receiving an ATM cell comprising header bytes, information storage bytes and synchronous network traffic stored in the information storage bytes; and

means for communicating the ATM cell using the bandwidth allocation information without individually switching the information storage bytes.

32. (New) A method for establishing a cross-connection for synchronous network traffic transported in an asynchronous transfer mode (ATM) network, comprising:

determining a network path for a cross-connection, the network path comprising a first switching node and a second switching node;

storing bandwidth allocation information for the first and second switching nodes;

communicating a first network request for the cross-connection to the first switching node, the first network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for the cross-connection;

receiving, in response to the first network request, updated bandwidth allocation information for the first switching node;

updating the stored bandwidth allocation information for the first switching node; and

communicating a second network request for the cross-connection to the second switching node, the second network request comprising the destination identifier, the bandwidth requirements for the cross-connection, and the updated bandwidth allocation information for the first switching node.

33. (New) The method of Claim 32, wherein determining the network path for the cross-connection comprises:

determining a plurality of network paths from an origination to a destination, each network path specifying one or more switching nodes and each network path having sufficient bandwidth to support the cross-connection;

selecting from the plurality of network paths one or more shortest network paths comprising a least number of switching nodes; and

selecting from the one or more shortest network paths the shortest network path having the highest bandwidth.

34. (New) The method of Claim 32, wherein the method further comprises:

receiving a network response indicating that insufficient bandwidth is available for the cross-connection; and

selecting an alternative network path for the cross-connection.

35. (New) The method of Claim 32, wherein the steps are performed at a network managing station.

36. (New) Software embodied in a computer readable medium and operable to perform the following steps:

determining a network path for a cross-connection, the network path comprising a first switching node and a second switching node;

storing bandwidth allocation information for the first and second switching nodes;

communicating a first network request for the cross-connection to the first switching node, the first network request comprising a destination identifier specifying a destination switching node and further comprising bandwidth requirements for the cross-connection;

receiving, in response to the first network request, updated bandwidth allocation information for the first switching node;

updating the stored bandwidth allocation information for the first switching node; and

communicating a second network request for the cross-connection to the second switching node, the second network request comprising the destination identifier, the bandwidth requirements for the cross-connection, and the updated bandwidth allocation information for the first switching node.

37. (New) The software of Claim 36, wherein determining the network path for the cross-connection comprises:

determining a plurality of network paths from an origination to a destination, each network path specifying one or more switching nodes and each network path having sufficient bandwidth to support the cross-connection;

selecting from the plurality of network paths one or more shortest network paths comprising a least number of switching nodes; and

selecting from the one or more shortest network paths the shortest network path having the highest bandwidth.

38. (New) The software of Claim 36, wherein the method further comprises receiving a network response indicating that insufficient bandwidth is available for the cross-connection; and selecting an alternative network path for the cross-connection.—

ATTORNEY DOCKET NO.
062891.0646

PATENT APPLICATION
Serial No. 10/007,348

Exhibit "B"
(Copy of Information Disclosure Statement filed November 7, 2001)

The "Received" stamp of the Patent and Trademark Office imprinted hereon acknowledges the filing of:

<input checked="" type="checkbox"/> New Appn.; C.P.A.; <input checked="" type="checkbox"/> CIP.; Div.; Provisional; Converted Provisional • (Specification, Claims, Abstract) <input type="checkbox"/> Bibliographic Data Sheet <input checked="" type="checkbox"/> Declaration/power of Attorney <input type="checkbox"/> COPY <input type="checkbox"/> Assignment <input type="checkbox"/> Verified Statement <input checked="" type="checkbox"/> Formal Drawing <input type="checkbox"/> COPY <input type="checkbox"/> Informal Drawings <input checked="" type="checkbox"/> Amendment/Response Preliminary	Total Pages <u>21</u> <u>2</u> <u>7</u> <u>23</u>	Total Pages <input type="checkbox"/> Mo. Extension of Time <input type="checkbox"/> Notice of Appeal <input type="checkbox"/> Appeal Brief <input type="checkbox"/> Issue Fee Transmittal <input checked="" type="checkbox"/> Check No. <u>110816</u> Amt: <u>1,100.00</u> <input type="checkbox"/> Check No. _____ Amt: _____ <input type="checkbox"/> Serial No. <input checked="" type="checkbox"/> Other <u>IDS 000000 (4 pg's)</u> <u>+ PTO-1449</u>
Name of Inventor(s): <u>Budhraja</u>		Receipt Date & Serial No:
Title of Invention: <u>M2A for Switching & Managing Bandwidth, ...</u>		
Client or Applicant: <u>LiSco Sys.</u>	BB File No.: <u>062891.0646</u>	
Mailed: <u>11/7/01</u>	Certificate of Mailing Express Mail <input checked="" type="checkbox"/> Receipt No.: <u>EL501024320 US</u>	
Due:	Certificate Of Mailing First Class Mail <input type="checkbox"/> Hand Delivered <input type="checkbox"/>	
Atty/Secy: <u>BES/KL</u>	JC955 U.S. PTO  <u>10/007348</u> 11/07/01	

Docket ✓ Wrapper ✓

RVF Docketed ✓

Reference(s) ✓

BAKER BOTT, L.L.P.

DEC 26 2001

RECEIVED

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Virendra Kumar Budhraja

Title: METHOD AND APPARATUS FOR SWITCHING AND MANAGING
BANDWIDTH IN AN ATM/TDM NETWORK CROSS-
CONNECTION

Assistant Commissioner

for Patents

Washington, D.C. 20231

Dear Sir:

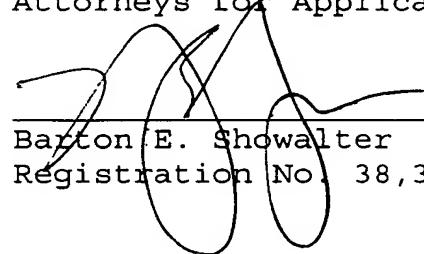
INFORMATION DISCLOSURE STATEMENT

Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form, and previously cited in U.S. Application Serial No. 09/208,626 filed December 8, 1998 by Applicant and entitled "Method and Apparatus for Switching and Managing Bandwidth in an ATM/tdm Network Cross-Connection," be considered and cited in the examination of the above-identified continuation patent application. Pursuant to 37 C.F.R. § 1.98(d), copies of these references are not being furnished. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

Pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. If, however, Applicants have overlooked the need for a fee, the Commissioner is hereby authorized to charge any underpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant


Barton E. Showalter
Registration No. 38,302

Dated: Nov 7, 2001

2001 Ross Avenue, Suite 600
Dallas, TX 75201-2980
Tele.: 214.953.6509
Fax: 214.661.4509

PTO-1449 Information Disclosure Citation in an Application	Application No.	Applicant(s)		
	Budhraja			
	Docket Number 062891.0646	Group Art Unit	Filing Date	

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	5,166,927	11/1992	Iida et al.	370	238	
B	5,274,635	12/1993	Rahman, et al.	370	60.1	
C	5,483,522	01/1996	Derby et al.	370	400	
D	5,627,971	05/1997	Miernik	370	238	
E	5,777,988	07/1998	Cisneros	370	238	
F	5,790,546	08/1998	Dobbins et al.	370	400	
G	5,940,372	08/1999	Bertin et al.	370	238	
H	6,141,318	10/2000	Miyao	370	217	
I						
J						
K						
L						
M						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
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O							
P							
Q							
R							

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
S	"Digital Interface Between the SLC®96 Digital Loop Carrier System And A Local Digital Switch," Technical Reference TR-TSY-000008, Issue 2, August, 1987, Revision 1, September, 1993, <i>Bellcore</i> .	09/1993
T	"Functional Criteria for Digital Loop Carrier Systems," A Module of TSGR, FR-NWT-000440, Technical Reference TR-NWT-000057, Issue 2, January, 1993, <i>Bellcore</i> .	01/1993
U	"Integrated Services Digital Network (ISDN) Overall Network Aspects and Functions Functional Architecture of Transport Networks Based on ATM," ITU-T Recommendation 1.326, <i>International Telecommunication Union</i> , November, 1995, 23 pages.	11/1995

EXAMINER	DATE CONSIDERED
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PTO-1449 Information Disclosure Citation in an Application		Application No.	Applicant(s) Budhraja		
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U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
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C						
D						
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I						
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FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
N							
O							
P							
Q							
R							

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
S	"Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface," (A module of TSGR, FR-440), Generic Requirements GR-303-CORE, Issue 2, Bellcore, December, 1998.	12/1998
T		
U		

EXAMINER DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.